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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,389	10/15/2003	Ivan Osorio	011738.00139	2112
70467 7590 01/09/2008 BANNER & WITCOFF, LTD AND ATTORNEYS FOR CLIENT NUMBER 011738 10 SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606			EXAMINER ASTORINO, MICHAEL C	
			ART UNIT 3736	PAPER NUMBER
			MAIL DATE 01/09/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/687,389

Applicant(s)

OSORIO ET AL.

Examiner

Michael C. Astorino

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-12,14-28,30 and 32-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3243 is/are allowed.
- 6) ☒ Claim(s) 1-8,10-12,14-28,30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

[37] applicant should disclose each figure individually. For example: Figure 28, depicts an example of the interpolating empirical probability function for various values. Figure 29, depicts an example of the interpolating empirical probability function for various values.

[79] and [102] applicant should write out the element numbers individually instead of using shorthand notation. For example change 1601-1609 to 1601, 1603, 1605, 1607, and 1609.

The US Patent Application in [117] should be updated to include the US Patent Number 6,978,171.

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 501, 1009, 1027, 1109, 1117, 1121, 1123, 22 (figure 12), 24 (figure 12), 22A (figure 13), 123, 125, 130, 1430,

1435, 1501, 1519, 1911, 2173, 2175, Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "22" in figure 12 has been used to designate both what appears to be a wire and figure 13 "22" is disclosed as a catheter; "20" has been used to designate an implanted device and a catheter port. (figures 12 and 13). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-22, 24-28, 30 and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. From the specification a person of ordinary skill in the art would not know how the "mean for processing" in claim 15 includes a means for allowing a user to exclude a certain neurological event from being scored.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-22, 24-28, 30 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Concerning Claim 15, it is unclear to the examiner the

structure that is associated with the “means for allowing a user to exclude a certain neurological event from being scored.”

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-8, 10-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Echauz et al. US Patent Number 6,678,548 B1.

Claim 1. A method for scoring a severity of sensed neurological signals relating to a nervous system disorder comprising the steps of:

- (a) determining that a sensed neurological signal represents at least one neurological event, the determining including processing of the sensed neurological signal after it is digitized; (inherent via element number 40, feature extraction)
- (b) identifying at least one feature of the neurological signal to use in scoring; (element number 40, feature extraction)
- (c) computing a score of relative severity of the event using the identified feature, wherein the computing allows a user to exclude a certain event from being scored.;

(element number 50 probability estimation, it is inherent that any computation can exclude data) and

(d) ranking the event by severity relative to at least one other scored neurological event, (inherent via element numbers 60 and 70; multi-therapy activation decision logic block and therapy modalities via control laws and therapy actuators; also including quality of life indicators).

In regards to claims 2 and 3, see column 2, lines 22-67, column 3, lines 1-46 and lines 66-67, and column 4, lines 1-6.

In regards to claims 4-6, see column 6, lines 15-27, figure 1 “tx”, “rx”, “80 wearable access unit.”

In regards to claims 7 and 8, see abstract and disclosure on the probability vector P.

In regards to claims 10 and 11, see column 4, lines 26-67 and column 5, lines 1-67.

In regards to claims 12 and 13, see (element number 20, signal acquisition)

Claim 14. A method of claim 1, wherein the nervous system disorder is selected from the group consisting of a central nervous system disorder, a peripheral nervous system disorder, and mental health disorder and psychiatric disorder. (see abstract, epileptic seizure)

In regards to claims 33-43 the previous office action provides sufficient disclosure to reject the claims; they are rejected on substantiality the same basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-12, 14-22, 24-28, 30, and 33-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Echauz et al. US Patent Number 6,678,548 B1.

Echauz et al. discloses everything except “wherein the computing allows a user to exclude a certain event from being scored.”

Claim 1. A method for scoring a severity of sensed neurological signals relating to a nervous system disorder comprising the steps of:

(a) determining that a sensed neurological signal represents at least one neurological event, the determining including processing of the sensed neurological signal after it is digitized; (inherent via element number 40, feature extraction)

(b) identifying at least one feature of the neurological signal to use in scoring; (element number 40, feature extraction)

(c) computing a score of relative severity of the event using the identified feature, wherein the computing allows a user to exclude a certain event from being scored; (element number 50 probability estimation, it is inherent that any computation can exclude data) and

(d) ranking the event by severity relative to at least one other scored neurological event, (inherent via element numbers 60 and 70; multi-therapy activation decision logic block and therapy modalities via control laws and therapy actuators; also including quality of life indicators).

In regards to claims 2 and 3, see column 2, lines 22-67, column 3, lines 1-46 and lines 66-67, and column 4, lines 1-6.

In regards to claims 4-6, see column 6, lines 15-27, figure 1 “tx”, “rx”, “80 wearable access unit.”

In regards to claims 7 and 8, see abstract and disclosure on the probability vector P.

In regards to claims 10 and 11, see column 4, lines 26-67 and column 5, lines 1-67.

In regards to claims 12 and 13, see (element number 20, signal acquisition)

Claim 14. A method of claim 1, wherein the nervous system disorder is selected from the group consisting of a central nervous system disorder, a peripheral nervous system disorder, and mental health disorder and psychiatric disorder. (see abstract, epileptic seizure)

Response to Arguments

Applicant's arguments, filed 10/29/2007, with respect to the rejection(s) of claim 1 under Echauz et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Echauz et al. under a different line of thought. Particularly, as a method claim the applicant step of "computing a score of relative severity of the event using the identified feature, wherein the computing allows a user to exclude a certain event from being scored;" when making a computation data can always be withdrawn from being used. This line of thinking cannot be used in apparatus claim 15 because there is no structure associated with the "means for" language as presently understood by the examiner. In regards to claims 33-43, further details to the rejection are provided in the above rejection.

Allowable Subject Matter

Claims 2, and 33-43 are allowed.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Astorino whose telephone number is 571-272-4723. The examiner can normally be reached on Monday-Friday, 8:30AM to 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael Astorino
January 6, 2008